

**PRODUCT APPLICATION SHEET**Document No.: PAS-HPS-1
Effective Date: 12, Jan 2025**Product Application Sheet for High Calcium Soya Milk****CAGGEL™ HPS**

Gellan Gum is a high molecular weight extracellular microbial polysaccharide produced by aerobic fermentation of a pure culture of *Sphingomonas elode*. CAGGEL™ HPS is a high acyl gellan gum with low protein reactivity. As a suspension and texture improving agent, CAGGEL™ HPS can suspend calcium salts, fibers and denatured protein in high calcium soya drink, creating a smooth mouthfeel while offering an excellent stability. According to the characteristics of the suspended particles, the typical recommended usage range of HPS is from 0.10% to 0.15%. CAGGEL™ HPS is highly versatile and can be combined with other hydrocolloids, emulsifiers, mineral salts, protein, fat and cellulose to obtain products with varying texture, taste and other attributes.

High Calcium Soya Drink Formula

Ingredients	% Weight
Soybean extract (3.0% protein)	35.00
CAGGEL™ HPS	0.12
Calcium carbonate	0.23
Sucrose	5.00
Deionized water to	100.00

Processing**Preparation for emulsion stabilizer solution**

1. Weigh CAGGEL™ HPS and sucrose, mix well
2. Disperse the mixed powder into water with stirring.
3. Heat the solution to 80-90°C, maintain at this temperature range for 10-15 mins with continuous stirring.

High calcium soya milk

4. Add the emulsion stabilizer solution into soybean extract solution, stir well.
5. Add calcium carbonate with stirring.
6. Add other ingredients (if any) with stirring.
7. Dilute with water to 100%.
8. Homogenization, 65-70°C/250+50 bar.
9. UHT, 140°C/4 seconds.
10. Cool to around 30°C.
11. Aseptic filling.

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